Claims

1.   A data switch having a plurality of ports, and a switching fabric for transferring data packets received at one of the ports to another of the ports specified by a header of the data packet, each of the ports being associated
5   with one or more queues for data packets, the data switch further including:

a memory divided into packet buffers;

a plurality of registers;

a control unit for determining whether a data packet to be stored in one of the queues meets a criterion for efficient storage in the packet buffers, and
10   otherwise dividing the data packet into a first portion which is stored in the packet buffers and a second portion which is stored in the registers.

2.   A data switch according to claim 1 in which the criterion for efficient storage is whether the length of the data packet is greater by more than a threshold than an integer multiple of the size of the packet buffers.

15   3.   A data switch according to claim 2 further comprising a memory storing the threshold value.

4.   A data switch according to claim 1 which is arranged initially to store the data packet in the packet buffers and, upon the control unit making a negative determination, to transfer the second portion of the data packet from
20   the packet buffers to the registers.

5.   A data switch according to claim 1 in which, if the determination is negative, the control unit transmits the second portion of the data packet to the registers without it having been stored in the memory.

6.   A data switch according to claim 1 which is an Ethernet switch.